

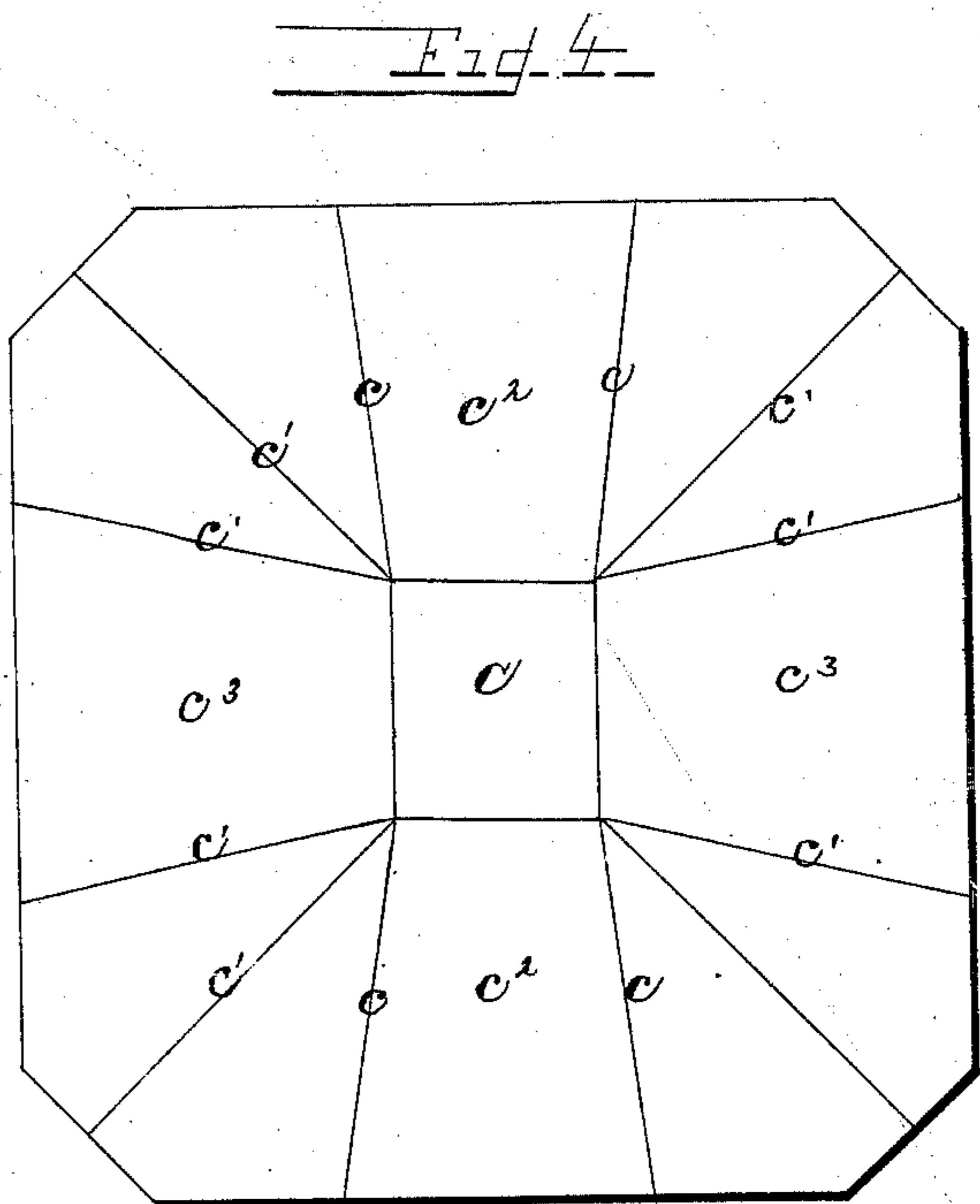
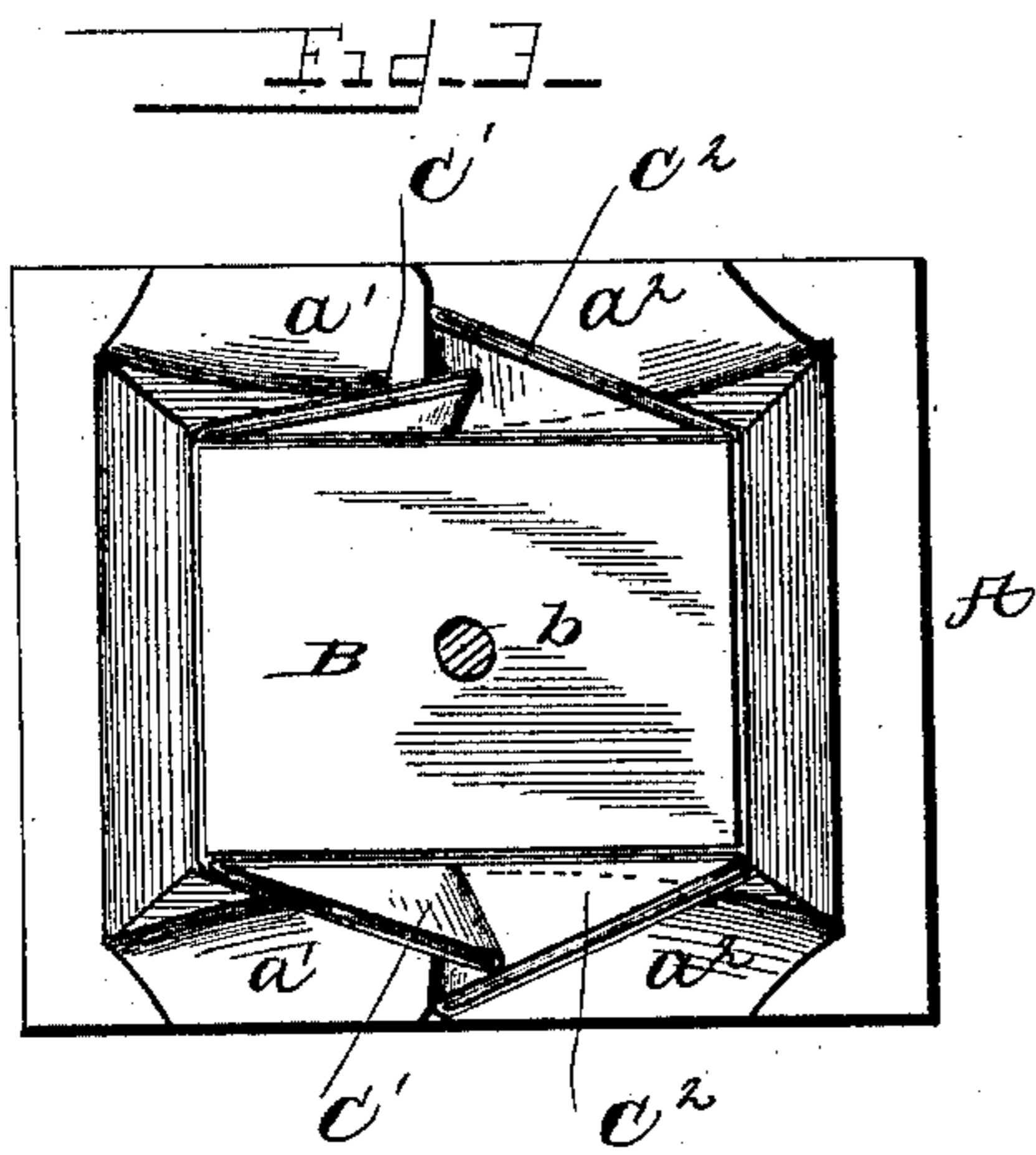
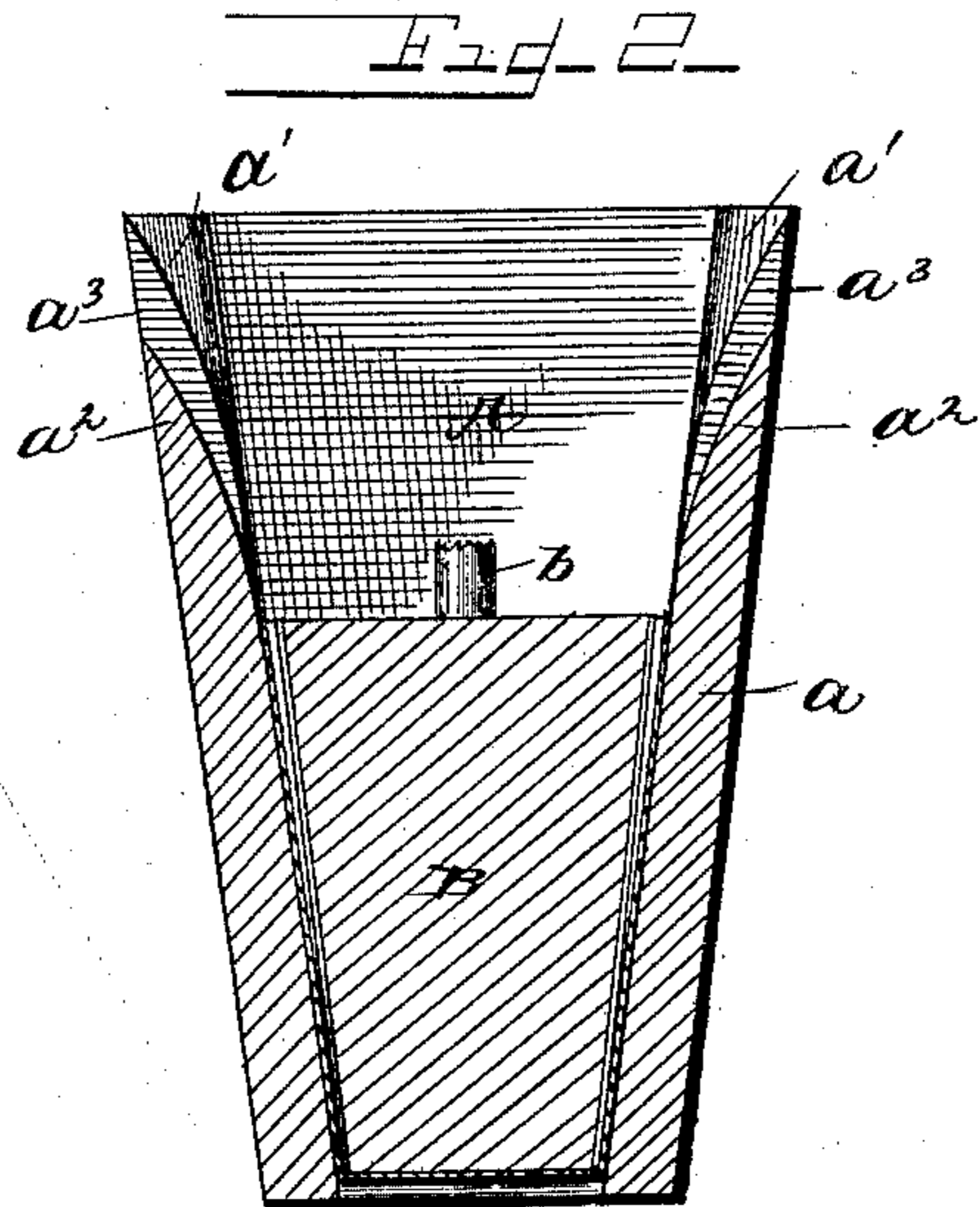
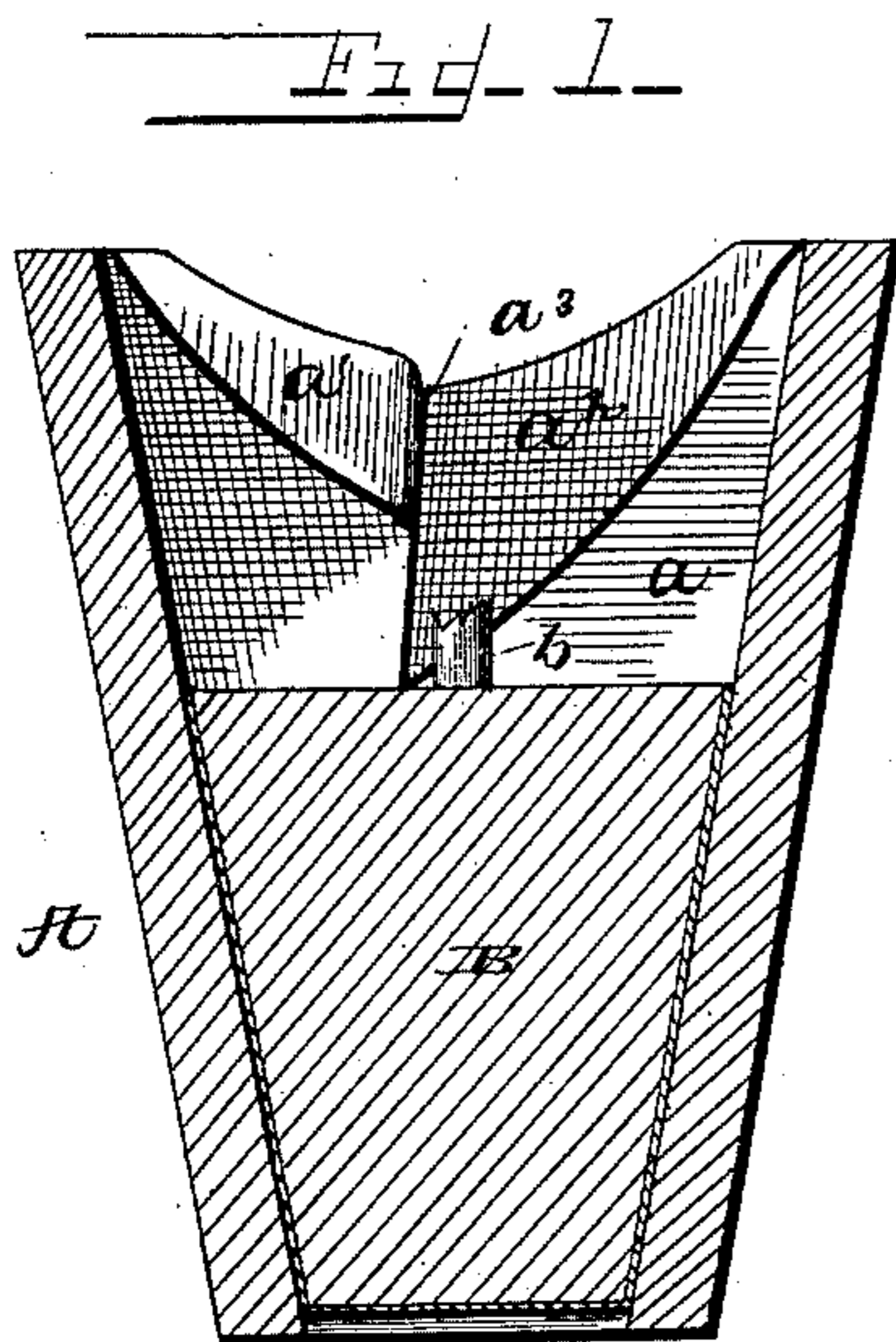
(No Model.)

2 Sheets—Sheet 1.

W. FOGLESONG.
MACHINE FOR MAKING PAPER VESSELS.

No. 432,029.

Patented July 15, 1890.



Witnesses

G. A. Tauberschmidt,
S. P. Whitaker

Inventor

Washington Foglesong

By his Attorneys

Whitaker & Trow

(No Model.)

2 Sheets—Sheet 2.

W. FOGLESONG.
MACHINE FOR MAKING PAPER VESSELS.

No. 432,029.

Patented July 15, 1890.

Fig. 5.

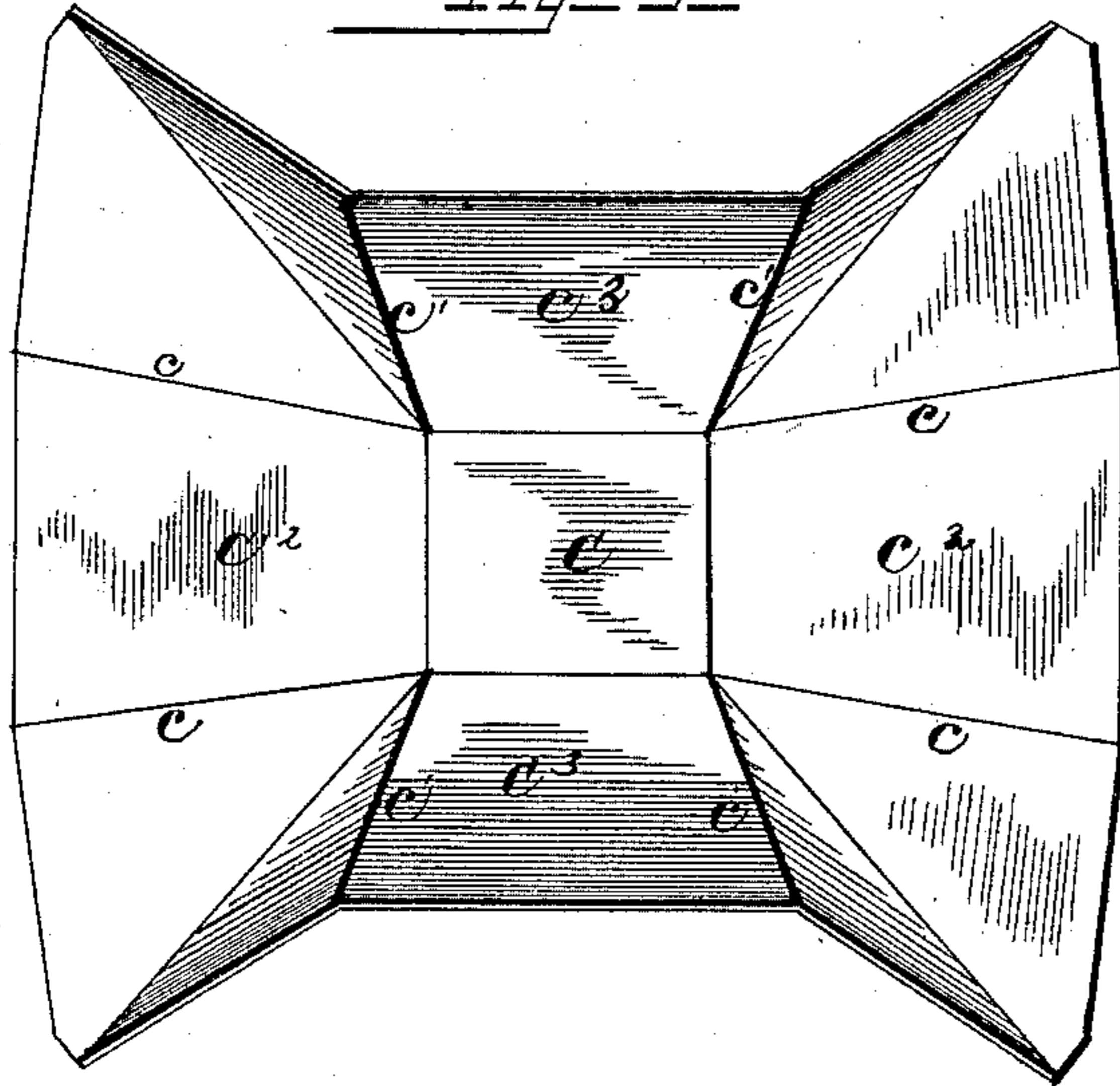
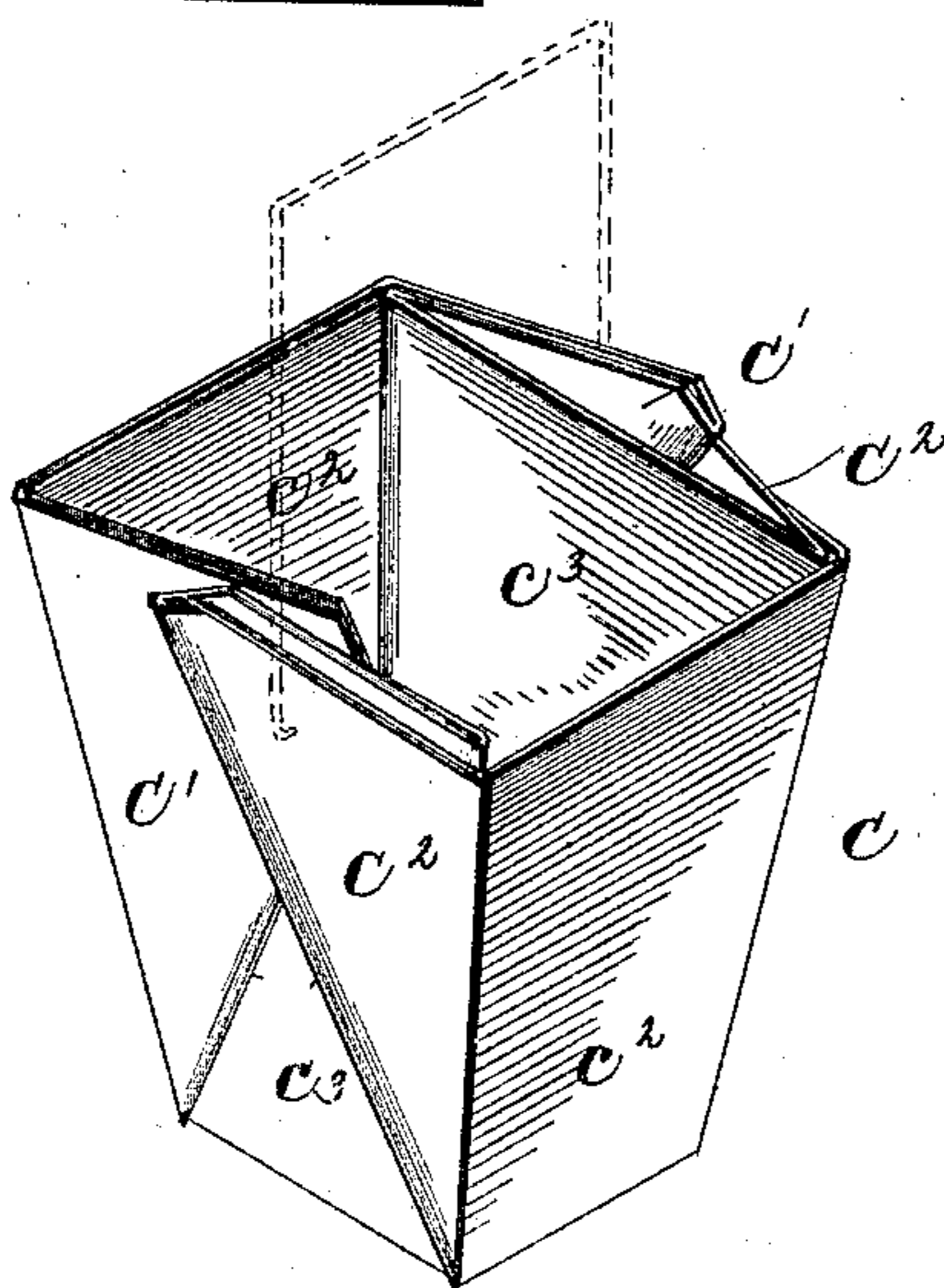


Fig. 6.



Witnesses

J. W. Taubenschmidt,
L. P. Whitaker.

Inventor

Washington Foglesong
By *h w* Attorneys
Whitaker & Brown.

UNITED STATES PATENT OFFICE.

WASHINGTON FOGLESONG, OF DAYTON, OHIO.

MACHINE FOR MAKING PAPER VESSELS.

SPECIFICATION forming part of Letters Patent No. 432,029, dated July 15, 1890.

Application filed October 30, 1889. Serial No. 328,654. (No model.)

To all whom it may concern:

Be it known that I, WASHINGTON FOGLESONG, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Machines for Making Paper Vessels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the manufacture of paper vessels; and it consists in an improved device for folding the blank into the proper form and defining its creases after it has been initially bent and partially creased by a suitable machine.

In the drawings I have shown one form in which I have contemplated embodying my invention, and the same is fully disclosed in the following specification and claims.

Referring to the said drawings, Figure 1 is a vertical longitudinal sectional view of the device, showing the parts in position and operating upon a blank. Fig. 2 is a similar sectional view taken on a line at right angles to the line of section of Fig. 1. Fig. 3 is a top plan view of the parts of the apparatus, showing the parts operating upon a blank before the completion of the operation. Fig. 4 is a plan view of the blank, showing the initial creases. Fig. 5 is a similar view showing portions of the blank slightly bent upward. Fig. 6 is a view of the completed vessel.

In the drawings I have shown a forming device adapted to form a paper vessel such as shown and described in my former patent, No. 411,654, dated September 24, 1889; but it will be obvious that by slight variations in the details of the construction of the parts they may be adapted to form other varieties of vessels.

My improved forming device consists of two parts—a male and a female die. In the drawings, A represents the female die, which consists, in this instance, of a rectangular box-like device tapering gradually from one end toward the other. Two of the opposite upper edges of the sides a of the die are provided each with two inclined beveled or curved portions a' and a^2 . These portions a' and a^2 are of different inclinations and are in different

planes, as clearly shown in Fig. 2, and a straight or curved face a^3 connects the said beveled portions, forming a shoulder, so that on the inner face of the side a of the die the inclined beveled portion a' will be in a higher plane than the portion a^2 . The male die consists of a block B, which is of the same shape and form as the lower part of the interior of the die A and is capable of fitting snugly within the same. This block or former B is provided with a suitable handle or stock b when the devices are to be operated by hand; but it is obvious that if the said parts A and B were embodied in a suitable machine the operation would be substantially the same.

The blank C is shown at Figs. 4 and 5. In Fig. 4 it is shown in a horizontal plane, and in Fig. 5 it is shown in the position it would naturally take after having been initially creased by a suitable machine. When a blank has been initially creased by a machine provided for that purpose, it yet remains to fold the blank on the creases in the proper manner to form the paper vessel, and then the said creases must be firmly pressed into shape and the angles sharply defined in order to give the desired form and rigidity.

The blank from which I form the vessel (shown in Fig. 6) is creased by any suitable machine, and will be provided with the raised or inward folds or creases c and a number of outward folds or creases c' . The partially-creased blank is laid upon the female die with the inward folds c above the edges of the die, and the male die B is brought into contact with the center of said blank and made to force the same into the die A. As the die B descends, the portions c^2 of the blank between the inward folds c will be pressed up against opposite faces of the die B, and the corresponding portions c^3 will be pressed up against the remaining sides or faces of the die B. This will leave flaps or folds C' adjacent to the corners of the die, which will engage the inclined beveled portions a' of the female die, respectively. The portions a' or guides of the die A will press the folds C' inwardly as the die B descends before the folds C^2 are pressed inwardly by the guiding portions a^2 , as is clearly shown in Fig. 3. It will thus be seen that the portions a' will form flap-guides, and that the folds or flaps

C² will lie upon portions of the flaps or folds C'. As the die B is pressed farther into the die A and forced down tightly, it will define the creases and press the vessel into the form 5 shown in Fig. 6, and when removed from the die it will be in such condition as to be readily secured by riveting or by simply passing the piece of wire forming the handle through the flaps C' C² and the sides of the vessel, as indicated in dotted lines. The said die may 10 also be provided with a suitable band or bands surrounding the same to prevent it from splitting when the male die is forced within the same.

15 What I claim, and desire to secure by Letters Patent, is—

1. A former for paper vessels, consisting of a tapering male die substantially of the size of the interior of the completed vessel and a 20 female die tapering from one end to the other,

said die being substantially of the size of the completed vessel at its smaller end, the larger end of said die being provided on two opposite edges with two inclined beveled portions meeting in a shoulder, substantially as and 25 for the purpose set forth.

2. A former for paper vessels, consisting of a female die tapering from one end to the other and provided at two opposite edges adjacent to its larger end with the inclined beveled portions *a'* and *a''*, meeting and forming 30 the shoulder *a'''*, one of said portions being of sharper pitch than the other, substantially as described.

In testimony whereof I affix my signature 35 in presence of two witnesses.

WASHINGTON FOGLESONG.

Witnesses:

WILLIAM H. RUSSELL,
C. J. MATTENE.